58CMA
Multipoise Oil Furnace
Input Capacities: 70,000 thru 154,000 Btuh
Series 130

Carrier®
Turn to the Experts℠

Product Data

A06625

THE LATEST IN OIL FURNACE TECHNOLOGY

The model 58CMA combines high efficiency and quiet operation with oil heating technology. The 58CMA is available in 2 sizes. Each size can be fired at 3 different rates by a simple nozzle and pump pressure change. Unit 58CMA105 covers input ranges from 70,000 to 105,000 Btuh. Unit 58CMA120 covers input ranges from 119,000 to 154,000 Btuh. The furnace design is a multipoise style for upflow, downflow, and horizontal applications.

The components of the 58CMA are the finest in the industry. The unit uses a Beckett oil burner with a "clean-cut" oil pump, UTEC ignition controller, and fan cycle timer.

The 58CMA is a standard part of a quality-built home. This energy efficient furnace will provide years of quality service to home builders and homeowners alike.

As with other Carrier furnaces, this model is designed to work as part of a total home comfort system which includes elements for cooling, air cleaning, humidification, ventilation, and zoning.

58CMA FEATURES/BENEFITS

Beckett Oil Burner and UTEC Controls

- High quality Beckett oil burner allows safe and efficient combustion of oil.
- UTEC ignition control and fan timer board provide reliable operation and easy connection of thermostat and accessory wiring.

Casing

- Made of 20-gauge, powder-painted steel for years of durability and attractiveness.
- Cabinet features a reversible door, ensuring ease of service access even in downflow applications.

Insulation and Soundproofing

- Unique silencer baffle, insulated walls and rubber blower mounts capture most combustion noise and vibration and make this unit one of the quietest on the market.

Combustion Products Venting

- Top or side flue outlet.
- Unit may be vented using Type L vent material and a factory-built metal or masonry chimney.
- Unit may also be sidewall vented with an approved power venter.

Adjustable Blower Speed

- 4-speed blower for precise airflow selection of heating or cooling operation.

Constant Low-Speed Blower Switch

- Allows continual low-speed air circulation through the home to maximize comfort while maintaining efficiency.
- Air is constantly filtered and stagnant air is avoided.
- This option can be controlled by the homeowner.

Combustion Chamber/Heat Exchanger

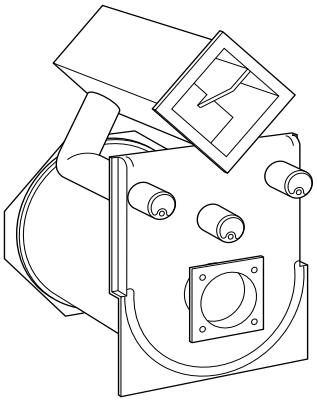
- Composed mainly of stainless and aluminized steel, the unique combination combustion chamber/heat exchanger resists corrosion, overheating, and deterioration.
- Heat transfer properties make it energy efficient.
- All seams are tightly welded for leak-free operation.

Certifications

- 58CMA unit is CSA certified.
- The efficiency is GAMA efficiency rating certified.

Warranties

- Limited Lifetime Warranty on combustion chamber/ heat exchanger.
- Five-year Warranty on Beckett burner and remaining components.
  Contact your dealer for details.



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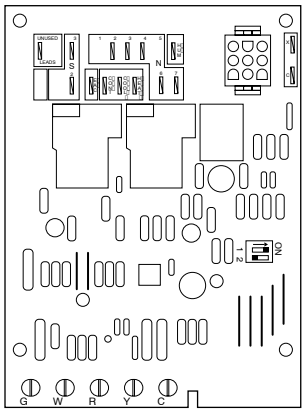
COMBUSTION CHAMBER/
HEAT EXCHANGER



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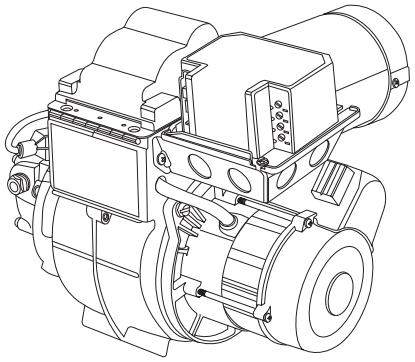
CONTROL CENTER



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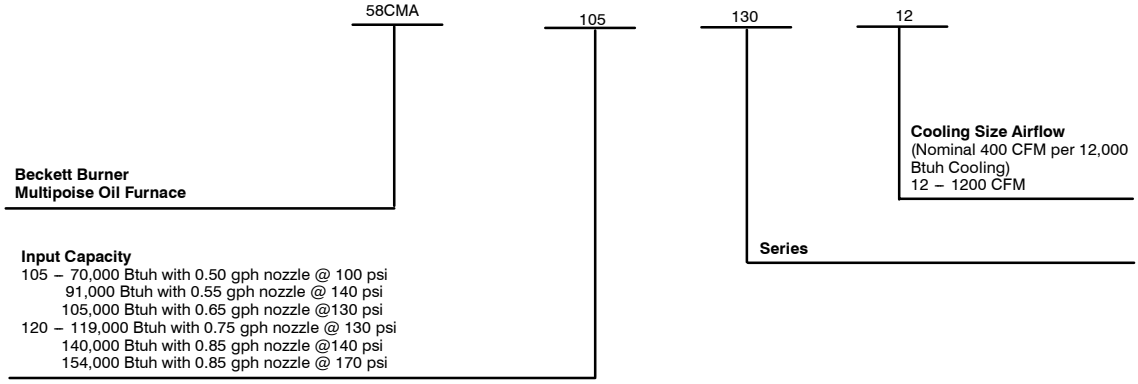
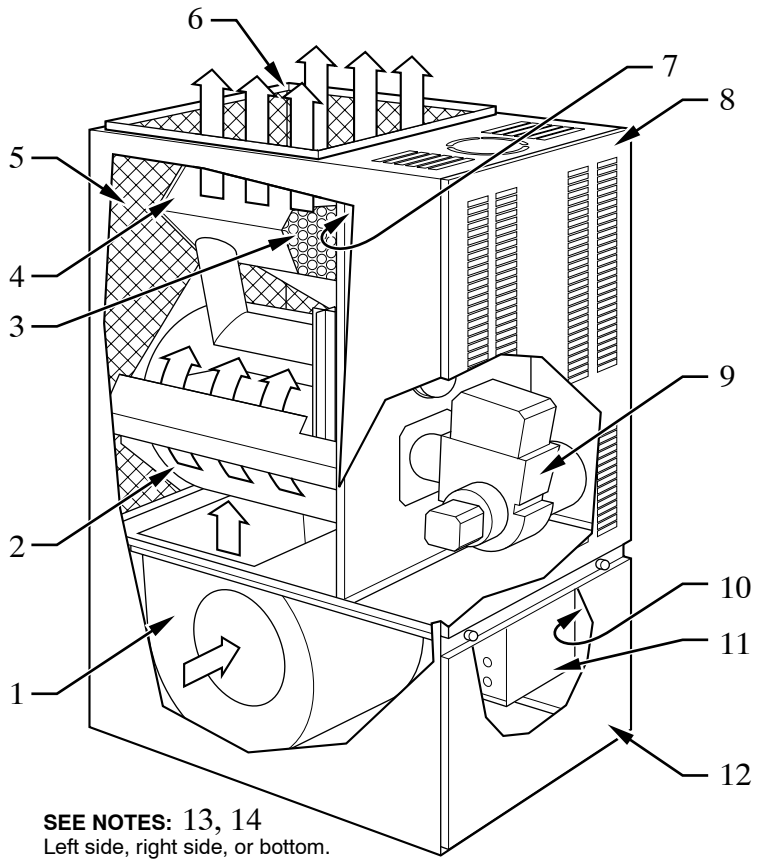
OIL BURNER

MODEL NUMBER NOMENCLATURE


58CMA
105
130
12
Beckett Burner
Multipoise Oil Furnace
Input Capacity
105 – 70,000 Btuh with 0.50 gph nozzle @ 100 psi
91,000 Btuh with 0.55 gph nozzle @ 140 psi
105,000 Btuh with 0.65 gph nozzle @130 psi
120 – 119,000 Btuh with 0.75 gph nozzle @ 130 psi
140,000 Btuh with 0.85 gph nozzle @140 psi
154,000 Btuh with 0.85 gph nozzle @ 170 psi
Series
Cooling Size Airflow
(Nominal 400 CFM per 12,000
Btuh Cooling)
12 – 1200 CFM

C US

EFFICIENCY RATING CERTIFIED ama



SEE NOTES: 13, 14
Left side, right side, or bottom.

A97244

1. Heavy-duty blower circulates air across the heat exchanger to transfer heat into the home.
2. Stainless steel combustion chamber/primary heat exchanger.
3. Unique silencer system reduces combustion noise.
4. Heat exchanger designed and shaped to efficiently transfer heat from furnace into the home.
5. Fully insulated internal walls to minimize heat loss and reduce sound.
6. Supply-air plenum.
7. High limit control to prevent overtemperature operation.
8. Reversible door provides easy access to burner and controls.
9. High-performance oil burner.
10. Manual switch to allow user control of constant low-speed blower operation.
11. Adjustable electronic fan timer control (inside) has low voltage electrical terminal strip for easy connection of thermostat, cooling control, electronic air cleaner, and humidifier.
12. Access door to blower.
13. Air filter (field supplied).
14. Return-air plenum.

CLEARANCE TO COMBUSTIBLES

UNIT APPLICATION		UPFLOW	DOWNFLOW	HORIZONTAL
SIDES	Furnace	0	2	2
	Supply Plenum and Warm–Air Duct Within 6 Ft of Furnace	1	2	1
BACK	Furnace	0	1	0
TOP	Furnace Casing or Plenum	2	2	2
	Horizontal Warm–Air Duct Within 6 Ft of Furnace	2	2	3
BOTTOM	Furnace	0	0*	0*
FLUE PIPE	Horizontally or Below Pipe	4	4	4
	Vertically Above Pipe	9	9	9
FRONT		8	8	24

*For combustible floor, use approved accessory subbase.

NOTE: Adequate service clearance should be provided over and above these dimensions as required.

PHYSICAL DATA

UNIT SIZE	105–12			120–20		
INPUT (BTUH)	70,000	91,000	105,000	119,000	140,000	154,000
HEATING CAPACITY (BTUH)*	57,000	74,000	85,000	97,000	115,000	126,000
NOZZLE	0.50 – 70W	0.55 – 70B	0.65 – 70B	0.75 – 70B	0.85 – 70B	0.85 – 70B
FIRING RATE (GPH)	0.50	0.65	0.75	0.85	1.00	1.10
AFUE% UPFLOW	80.5	80.5	80.5	80.5	80.5	80.5
DOWNFLOW	80	80	80	80	80	80
HORIZONTAL	80	80	80	80	80	80
OIL PUMP STAGES/PRESSURE (PSIG)	1/100	1/140	1/130	1/130	1/140	1/170
HEATING TEMP RISE °F	55–85	55–85	55–85	55–85	55–85	55–85
COOLING CFM @ 0.5–IN. WC STATIC PRESSURE	1250	1250	1250	1865	1865	1865
HEATING CFM @ 0.2–IN. WC STATIC PRESSURE	840	1130	1425	1220	1535	1890
RECOMMENDED HEATING BLOWER SPEED	Med–Low	Med–High	High	Med–Low	Med–High	High
SHIPPING WEIGHT (LB)	235	235	235	260	260	260
BURNER MODEL (3450 RPM)†	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F3	BECKETT AFG–F6

* Capacity and AFUE in accordance with U.S. Government DOE test procedures.

† Beckett AFG–F6 requires field–supplied and replacement burner firing head.

Shaded cells are as factory shipped.

PERFORMANCE DATA

UNIT SIZE	105–12	120–20
DIRECT–DRIVE MOTOR Hp (PSC)	1/3	3/4
MOTOR FULL LOAD AMPS	6.2	9.5
RPM (Nominal) – SPEEDS	1075–4	1075–4
BLOWER WHEEL DIAMETER X WIDTH (In.)	10 x 10	12 x 10
FILTER SIZE (In.) – (Disposable, Field Supplied)	16 x 24 or 25 x 1	20 x 30 x 1

AIR DELIVERY -CFM (WITH FILTER)

UNIT SIZE	BLOWER MOTOR HP	SPEED	EXTERNAL STATIC PRESSURE (In. wc)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
105–12	1/3 PSC	High	1425	1350	1305	1250	1170	1030	925	805
		Med–High	1130	1045	1000	950	885	820	745	670
		Med–Low	840	810	770	740	685	635	580	500
		Low	725	730	740	745	730	715	690	665
120–20	3/4 PSC	High	2080	2040	1965	1865	1700	1575	1475	1335
		Med–High	1890	1860	1770	1675	1550	1450	1330	1215
		Med–Low	1555	1475	1395	1320	1210	1135	1050	940
		Low	1220	1165	1080	1000	925	855	780	655

ELECTRICAL DATA

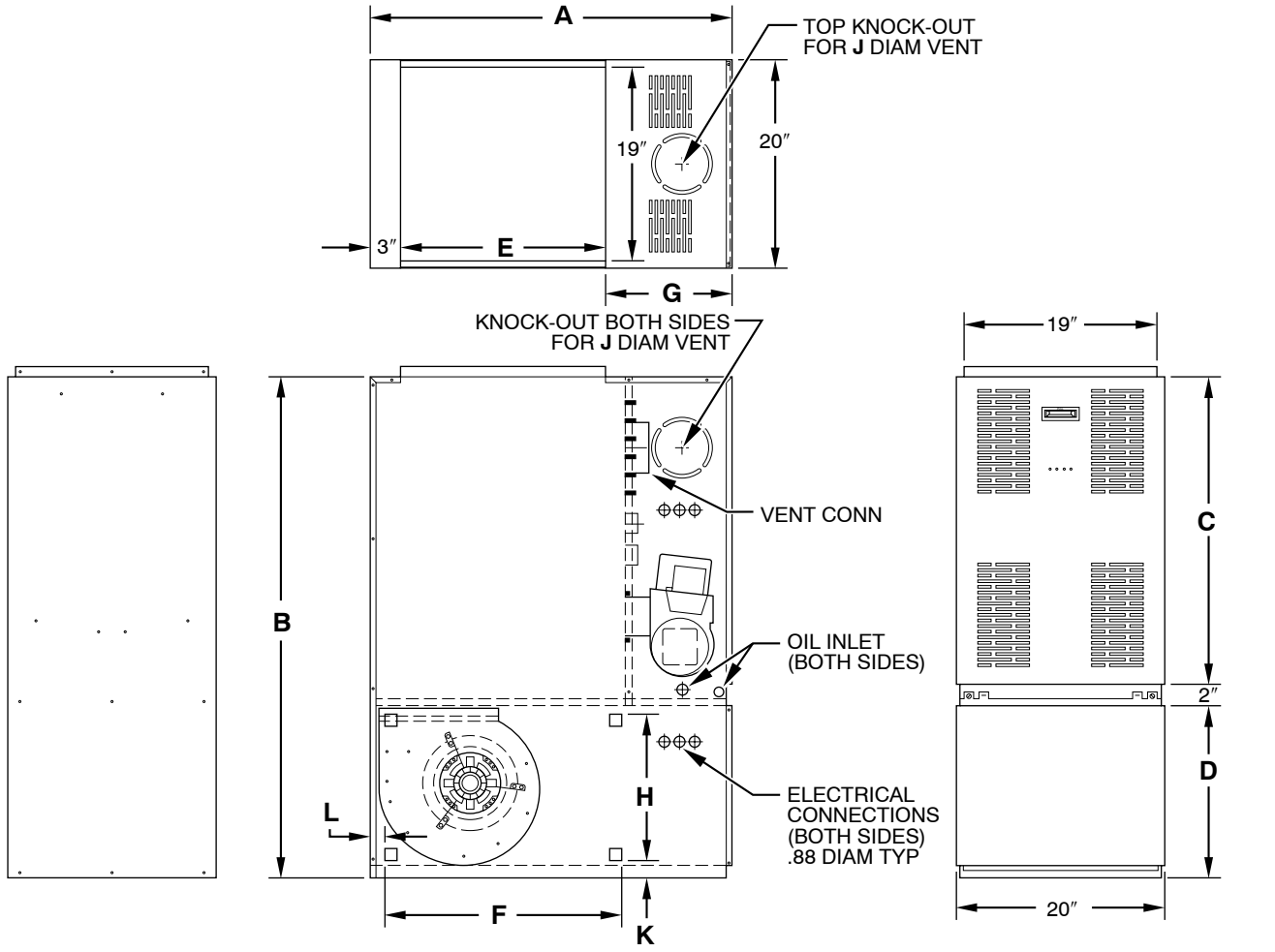
UNIT SIZE		105–12	120–20
UNIT VOLTS–HERTZ – PHASE		115 – 60 – 1	115 – 60 – 1
OPERATING VOLTAGE RANGE (Min–Max)*		104 – 132	104 – 132
MAXIMUM UNIT AMPS		12.2	15.7
MINIMUM WIRE SIZE (AWG)		14	12
MAXIMUM WIRE LENGTH (Ft)†		26	26
MAXIMUM FUSE SIZE OR CKT BKR (Amps)‡		15	20
TRANSFORMER (24v)		40va	40va
EXTERNAL CONTROL POWER AVAILABLE	Heating	40va	40va
	Cooling	30va	30va
AIR CONDITIONING RELAY		Standard	Standard

* Permissible limits of the voltage range at which the unit will operate satisfactorily.

† Length is a measured one way along wire path between unit and service panel for maximum 2% voltage drop.

‡ Time–delay fuse type is recommended.

DIMENSIONS



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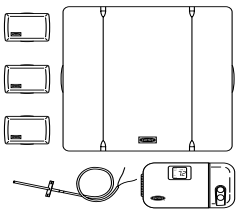
DIMENSIONS (IN.)

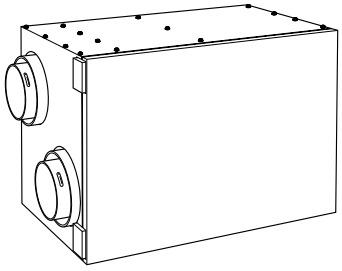
UNIT SIZE	A	B	C	D	E	F	G	H	J	K	L
105–12	35	48–3/4	31–1/4	16–5/8	20	22	12	14	5	1–1/2	1–3/4
120–20	39–1/2	53	33–1/4	18–3/4	24	28	12–19/32	16	6	1–5/8	1–1/2



A97432

CONTROLS: THERMOSTATS AND ZONING

Available in programmable and non–programmable models, Carrier thermostats maintain a constant, comfortable temperature level in the home.
For the ultimate in home comfort, Carrier's 2, 4, and 8–zone systems allow temperature control of individual "zones" of the home. This is accomplished through a series of electronic dampers and remote room sensors. The 4–zone system is shown.



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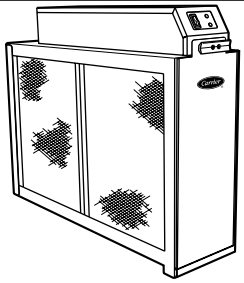
ENERGY/HEAT RECOVERY VENTILATOR

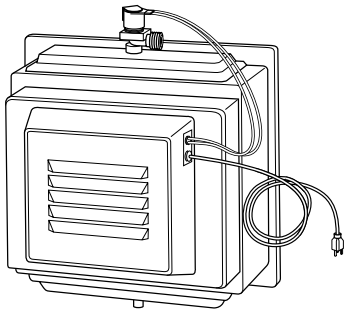
Carrier's energy or heat recovery ventilators exhaust stale indoor air and provide fresh outdoor air to the home while minimizing heat loss and humidity level. Especially useful for today's tighter constructed houses.
Energy recovery ventilator is shown.



A97380

ELECTRONIC OR MECHANICAL AIR CLEANER

Cleans the air of smoke, dirt, and many pollens commonly found. Saves decorating and cleaning expenses by keeping carpets, furniture, and drapes cleaner.
Electronic air cleaner is shown.



A91365

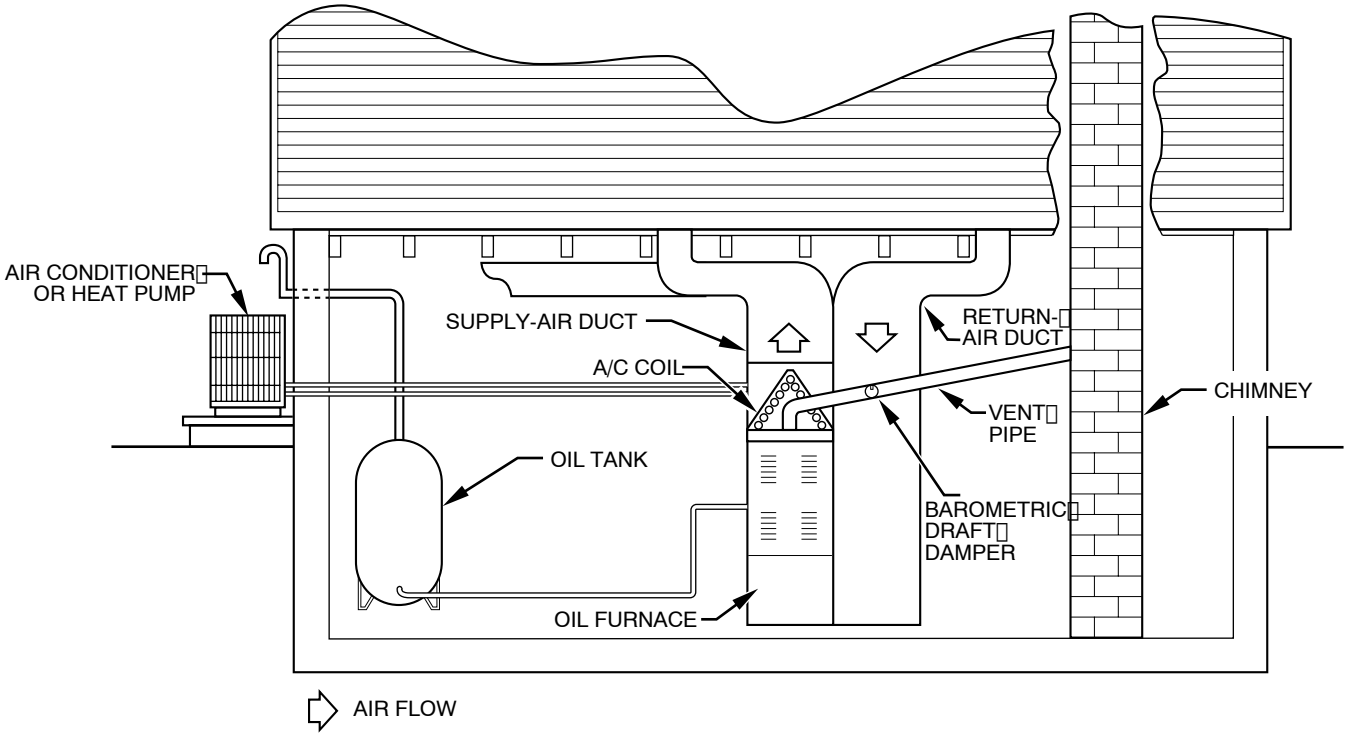
HUMIDIFIER

By adding moisture to winter–dry air, Carrier humidifier can often improve comfort and keeps woodwork, wallpaper, and paint in better condition. Moisturizing household air also helps to retain normal body heat and provides comfort at lower temperatures.

ACCESSORIES

FURNACE ACCESSORIES	
KLASB0601DET	Downflow Subbase Kit – Required for combustible floors
KLASB0701DET	Horizontal Subbase Kit – Required for combustible floors
KLABV0101DET	Blocked Vent Shutoff Kit
KLADC0101DET	Downflow Conversion/Vent Guard – Required for downflow operation, Model 105–12
KLADC0201DET	Downflow Conversion/Vent Guard – Required for downflow operation, Model 120–20
PROGRAMMABLE THERMOSTAT SELECTION	
TSTATCCSAC01	Thermostat, Manual Changeover, 5–2 Day Programmable, °F/°C, 1–Stage Heat/1–Stage Cool
TSTATCCSHP01	Thermostat, Manual Changeover, 5–2 Day Programmable, °F/°C, 2–Stage Heat/1–Stage Cool
NON–PROGRAMMABLE THERMOSTAT SELECTION	
TSTATCCBAC01	Thermostat, Non–Programmable, °F/°C, 1–Stage Heat/1–Stage Cool
TSTATCCBHP01	Thermostat, Non–Programmable, °F/°C, 2–Stage Heat/1–Stage Cool
ZONING CONTROL SELECTION	
ZONECC2KIT01–B	Comfort Zone II–B – 2 Zone Kit/Temperature and Humidity Control
ZONECC4KIT01–B	Comfort Zone II–B – 4 Zone Kit/Temperature and Humidity Control
ZONECC8KIT01–B	Comfort Zone II–B – 8 Zone Kit/Temperature and Humidity Control
HEALTHY HOME SOLUTIONS	
EACBAXCC0014	Electronic Air Cleaner – 120V, 1400 CFM
EACBAXCC0020	Electronic Air Cleaner – 120V, 2000 CFM
EACBAXCC2020	Electronic Air Cleaner – 240V, 2000 CFM
HUMCCSBP2312	Humidifier – 12 g./day, 24V Standard, Small Bypass
HUMCASBP2312	Humidifier – 12 g./day, 24V Automatic, Small Bypass
HUMCCLBP2317	Humidifier – 17 g./day, 24V Standard, Large Bypass
HUMCALBP2317	Humidifier – 17 g./day, 24V Automatic, Large Bypass
HUMCCLFP1318	Humidifier – 18 g./day, 24V Standard, Fan Powered
HUMCALFP1318	Humidifier – 18 g./day, 24V Automatic, Fan Powered
HRVCCSHA1100	Heat Recovery Ventilator – Small Horizontal Unit, 100 CFM
HRVCCSVA1100	Heat Recovery Ventilator – Small Vertical Unit, 100 CFM
HRVCCLHA1150	Heat Recovery Ventilator – Large Horizontal Unit, 150 CFM
HRVCCLHA1250	Heat Recovery Ventilator – Large Horizontal Unit, 250 CFM
HRVCCSVU1150	Heat Recovery Ventilator – Small Vertical Unit, 150 CFM
HRVCCSVU1200	Heat Recovery Ventilator – Small Vertical Unit, 200 CFM
HRVCCLVU1150	Heat Recovery Ventilator – Large Vertical Unit, 150 CFM
HRVCCLVU1200	Heat Recovery Ventilator – Large Vertical Unit, 200 CFM
HRVCCLVU1330	Heat Recovery Ventilator – Large Vertical Unit, 330 CFM
ERVCCSHA1100	Energy Recovery Ventilator – Small Horizontal Unit, 100 CFM
ERVCCSVA1100	Energy Recovery Ventilator – Small Vertical Unit, 100 CFM
ERVCCLHU1150	Energy Recovery Ventilator – Large Horizontal Unit, 150 CFM
ERVCCLHU1200	Energy Recovery Ventilator – Large Horizontal Unit, 200 CFM
EZXCABCC1016	Media Filter Cabinet – 1600 CFM (Replacement Filter: EXPXXFIL0016)
EZXCABCC1020	Media Filter Cabinet – 2000 CFM (Replacement Filter: EXPXXFIL0020)

TYPICAL INSTALLATION



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